

AMENDMENTS TO THE CLAIMS

8. (Currently Amended) A mobile station device, comprising:

an async demodulation module for converting a high-frequency signal from an async base station to a baseband signal and demodulating the baseband signal by despreading, said async demodulation module, comprising:

- a first radio frequency section, and
- a first baseband processor;

a sync demodulation module for converting a high-frequency signal from a sync base station to a baseband signal and demodulating the baseband signal by ~~dispreading;~~ despreading, said sync demodulation module, comprising:

- a second radio frequency section, and
- a second baseband processor;

a switch for switching the received signal between the async and sync demodulation modules, said switch, comprising; and

- a first switch, and
- a second switch;

a controller for driving the sync demodulation module for a given time interval to acquire the timing of the sync base station during an operation in the cell of ~~the~~ an async base station, and maintaining the acquired timing of ~~the~~ the ~~[[a]]~~ sync base station even after switching to the async demodulation module;

- a first phase locked loop (PLL) for supplying a carrier frequency signal to the async demodulation module;
- a second PLL for supplying a carrier frequency signal to the sync demodulation module;

and

- a local generator for supplying a local oscillation signal based on a reference clock provided from the async demodulation module and sync demodulation module to the first PLL and the second PLL;

wherein said first switch operates to connect the received signal to one of the async demodulation module and the sync demodulation module,

said second switch operates to connect the reference clock to a local generator,

said first radio frequency section multiplies a received signal from the async base station via the first switch by a carrier frequency signal from a first phase locked loop (PLL) to perform frequency down-conversion to a baseband signal,

said first baseband processor demodulates the baseband signal from the first radio frequency section by despreading, said second radio frequency section multiplies the received signal from the async base station via the first switch by a carrier frequency signal from a second phase locked loop (PLL) to perform frequency down-conversion to a baseband signal, and

said second baseband processor enables the mobile station to operate according to the timing of the sync bases station acquired for a given time period during communication with the async base station, includes a PN generator that operates even while the mobile station is in communication with the async system, and demodulates the baseband signal from the second radio frequency section by despreading.